101 on unaugmented Kern, as pa·lage·wan. This is term commonly used now for unaugmented Kern, but in this instance was translated as Kern River Indian. SM's use of term bears out Powers' statement, made in 1877, that "the Pal-li-ga-wo-nap [live] on Kern r.; the Ti-pa-to-la-pa on the South Fork of the Kern" (Powers, 393); Powers' information derived from member of Palagewan group, either Jose or Bill "Viejo" Chico (Powers, 394), both dead, but known to all my informants. Bancroft, 1875, on Maltby's authority, says "the Polokawynahs lived on Kern river" (Bancroft, 456). Gatschet, 1879, locates Pallegawonap E and SE of Tulare lake, on s. spurs of Sierra Nevada (U.S. Geog. Surv., 411).

173 History.- Tübatulabal say they always lived
[171] where found today; absence of migration legends is one of characteristics of Shoshone mythology
174 (Lowie, 233). On basis of specialization of their language Kroeber infers that Tübatulabal have lived in present isolated location for comparatively long period of time (Handbook, 605).
[101] Culturally Tübatulabal are borderline California-
[773] Great Basin group with probably more Great Basin traits than generally recognized; their myth-
[197] ology predominantly that of Great Basin (Gayton, 1935a, 588, 595); linguistic differentiation of Tübatulabal may turn out to be superficial in many respects (Whorf, 607); all these factors suggest that occupation of present location may not have been for such long period as Kroeber suggests.

●175 First white person to visit Palagewan was
177 Garcés in 1776 (Garcés, 280); guides for Fray Pedro Font in 1776 penetrated beyond junction of Kern and South Fork of Kern r. and met Indians there (Font, 390). During next 50 yrs. trading
[797] trips to Chumash villages near Ventura brought Tübatulabal and Palagewan in contact with San Buenaventura mission (SM), founded in 1782. By 1846 white settlers established ranches among Tübatulabal in South Fork valley (Morgan, 43).
[72] In 1857 Kern r. gold rush began in Palagewan territory. During 1862 a few Tübatulabal joined Owens Valley Paiute in hostilities against whites (Chalfant, 130; SM denied this) and about this
[62] time group of Koso Indians settled in Tübatulabal area, intermarrying chiefly with Kawaiisu, how-
[72] ever (SM, FP). In 1863 between 35-40 Tübatulabal and Palagewan men massacred near Kernville by American soldiery (SM, FP; Chalfant, 146; C. F. and E. W. Voegelin). Later in same yr. fairly large band of Owens Valley Paiute captives were conducted through Tübatulabal territory on way to Sebastian military reserve (Chalfant, 152), but owing to intercession of Judge Sumner of Kernville no Tübatulabal or Palagewan were re-
[241] moved with them (SM, PN). Between 1865-75 Tübatulabal began to practice agriculture (SM, FP);
[65] in 1893 majority of Tübatulabal and few Palagewan survivors allotted land in South Fork and Kern valleys.

133 river as it flows through gorge, but from e. mouth of gorge for 60 mi. downstream there is drop of 50 ft. per mi. in river's course. There are 2 periods of high water in Kern r.; one during winter rain-flood from Jan.-March, second during summer snow-flood, from May-July; lowest water occurs in October (Gifford and Schenck, 17). Minimum flow of Kern in dry season 2700-3000 cu. ft. per second, in season greatest capacity over 19000 cu. ft. per second (Pen Pictures, 248).

133 Three valleys lie at 2500-3000 ft. elevation.
132 They are in a climatic province which is semi-arid, with mesothermal temperature and summer deficiency of rainfall (Thornthwaite, pl. 3). Temperatures from 110-115° F. not uncommon in July-August; winters not severe, but generally some snow falls in valleys, more on foothills, and there are always heavy snows in mts. Precipitation records for Kernville, in Kern valley, are:

Year	Rainfall (in inches)	No rainfall
1924	6.48	May-September (inclusive)
1925	7.43	September
1926	11.66	June-September (inclusive)
1927	10.37	May-September (inclusive)
1928	6.47	June-September (inclusive)
1929	5.04	July, Aug., Oct.-Dec.
1930	6.97 plus 19 in. snow	June-October (inclusive)
1931	9.92	May, September
1932	7.34	July-November (inclusive)

[312] Previous to white settlement and diversion of water for agriculture, South Fork valley contained 2 large lakes, W of Onyx, NW of Weldon on
• [175] Jesus ranch (SM). In 1776 Garcés, writing of unaugmented Kern near Kernville, says, "On this *famous river, which I named Rio de San Felipe*, there are abundant pastures, famous woods, and much irrigated ground (tierra de regadio)" (Garcés, 282). In foothills which enclose valleys are numerous hot and cold springs and intermittently flowing streams.

137 Vegetation of 3 valleys and lower foothill regions mixed; Shantz and Zon include valleys in chaparral area; my botanical collections from valley-foothill region contain specimens from desert, foothill, and Great Basin floral areas. This mixed vegetation area extends in E-W line across s. base of Tübatulabal territory. N of it are several different forest belts extending in N-S line; on w. edge of area along Greenhorn mts., is spruce-fir strip; E of this along canyon of unaugmented Kern strip of yellow pine-sugar pine forest; E of this another spruce-fir strip and finally on e. edge of Tübatulabal territory strip of piñon-juniper forest (Shantz and Zon). In extreme n. part of Tübatulabal area, on w. slope of Sierras, is found subalpine forest and, at higher altitudes, alpine communities (Klyver, 8). In terms of Merriam's life zones, using tree indicators of Grinnell and Storer (Grinnell and